

Zytel® 7301L ECO-R 331 BK300

NYLON RESIN

Zytel® 7301L ECO-R 331 BK300 is an Unreinforced Polyamide 6

Zytel® 7301L ECO-R 331 BK300 incorporates a minimum of 30% ocean-bound post-consumer recycled content by weight in the finished product. The recycled content source is from used fishnets.

Product information

| | | |
|----------------------|-------|-----------|
| Resin Identification | PA6 | ISO 1043 |
| Part Marking Code | >PA6< | ISO 11469 |

Rheological properties

| | | | |
|------------------------------|-----------|---|-----------------|
| | dry/cond. | | |
| Moulding shrinkage, parallel | 1.1 / - | % | ISO 294-4, 2577 |
| Moulding shrinkage, normal | 1.5 / - | % | ISO 294-4, 2577 |

Typical mechanical properties

| | | | |
|--------------------------------------|-------------|-------------------|--------------|
| | dry/cond. | | |
| Tensile modulus | 3000 / 1400 | MPa | ISO 527-1/-2 |
| Tensile stress at break, 50mm/min | 65 / 45 | MPa | ISO 527-1/-2 |
| Tensile strain at break, 50mm/min | 36 / >50 | % | ISO 527-1/-2 |
| Flexural modulus | 2900 / 1200 | MPa | ISO 178 |
| Flexural strength | 99 / 40 | MPa | ISO 178 |
| Charpy notched impact strength, 23°C | 4.6 / 16 | kJ/m ² | ISO 179/1eA |
| Poisson's ratio | 0.37 / 0.43 | | |

Thermal properties

| | | | |
|---|-----------|----|----------------|
| | dry/cond. | | |
| Melting temperature, 10°C/min | 220 / * | °C | ISO 11357-1/-3 |
| Temperature of deflection under load, 1.8 MPa | 60 / * | °C | ISO 75-1/-2 |

Physical/Other properties

| | | | |
|--------------------------|-----------|-------------------|----------------|
| | dry/cond. | | |
| Humidity absorption, 2mm | 1.8 / * | % | Sim. to ISO 62 |
| Water absorption, 2mm | 6.2 / * | % | Sim. to ISO 62 |
| Density | 1130 / - | kg/m ³ | ISO 1183 |

Injection

| | |
|---------------------------------|---------|
| Drying Recommended | yes |
| Drying Temperature | 80 °C |
| Drying Time, Dehumidified Dryer | 2 - 4 h |
| Processing Moisture Content | ≤0.2 % |
| Melt Temperature Optimum | 270 °C |
| Min. melt temperature | 260 °C |
| Max. melt temperature | 280 °C |
| Mold Temperature Optimum | 70 °C |
| Min. mould temperature | 50 °C |
| Max. mould temperature | 90 °C |

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Characteristics

| | |
|----------------|--------------------|
| Processing | Injection Moulding |
| Delivery form | Pellets |
| Sustainability | Recycled Content |